ORIGINAL

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 25 of the Commission's	)	IB Docket No. 96-220
Rules to Establish Rules and Policies	)	
Pertaining to the Second Processing Round	)	
Of the Non-Voice, Non-Geostationary	)	
Mobile Satellite Service	)	

To: The Commission

COMMENTS OF LOCKHEED MARTIN CORPORATION

Lockheed Martin Corporation ("Lockheed Martin"), pursuant to Sections 1.415 and 1.419 of the Commission's Rules, hereby submits these comments on the Commission's Notice of Proposed Rule Making in the above-captioned proceeding.[1/] In its NPRM, the Commission makes a variety of proposals related to the consideration of applications that are part of the second processing group for the Non-Voice, Non-Geostationary Mobile Satellite Service ("NVNG MSS or Little LEOs"). Lockheed Martin addresses only the Commission's questions pertaining to use of auctions to resolve mutual exclusivity among license applicants for transnational satellite services such as NVNG MSS.[2/] Such use of auctions would not serve U.S. national interests; in fact, it would needlessly jeopardize U.S. leadership of the commercial satellite industry, while yielding little potential benefit. Simply put, auctions to assign spectrum for global and regional satellite systems would compromise U.S. economic and technological

---

1/ See Amendment to Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service, FCC 96-426, slip op. (released October 29, 1996) ("NPRM").

2/ See NPRM at 28 (¶ 78).

interests, and thwart the critical public interest goals that the Commission is charged with promoting — including those that the Commission's auction authority was specifically intended to promote. Finally, the use of auctions as an assignment method for licenses for such satellite systems raises complicated and as yet unaddressed questions about the impact on U.S. national security interests related to commercial communications satellite capabilities.

Lockheed Martin is a major aerospace and defense company specializing in the development of sophisticated spacecraft, launch systems, missiles and other high technology products. Lockheed Martin has applied to the Commission for authority to implement a global broadband geostationary fixed-satellite service system known as Astrolink™/℠ using primary service frequencies in the Ka-Band. Lockheed Martin has varied interests in other satellite service and related markets as well, both within and outside of the United States, and has committed itself to continued expansion of this business. Accordingly, Lockheed Martin has a strong interest in perpetuating the sound regulatory policies that have fostered U.S. leadership in the global satellite industry.

I. The Use Of Auctions For Assignment Of Spectrum For Transnational Satellite Services Would Set A Harmful Precedent Internationally, Producing Significant New Uncertainties And Financial Risks For Global/Regional Satellite System Proponents.

As the Commission acknowledged in its NPRM, "auctions for transnational satellite services raise issues that are considerably more complex and difficult than issues raised by terrestrial applicants."[3/] In fact, the very characteristics that make auctions well-suited for purely domestic services that have defined local or national service areas and do not cross national boundaries make bidding procedures particularly ill-suited for global satellite services. See

---

3/ NPRM at 29 (¶ 80).

Section III, infra. Auctioning the rights to spectrum for transnational services, would raise issues of international comity and reciprocal entry that could very well endanger the viability of commercial transnational satellite services.

In the NPRM, the Commission expressly poses the question whether "other countries may use competitive bidding to award licenses."[4/] If the Commission were to implement auctions as an assignment mechanism for spectrum for operation of global or regional satellite systems, there is no doubt that the U.S. precedent would result in U.S.-licensed system operators (or the in-country service providers) being subject to sequential demands for financial payments for access to and use of the spectrum from those countries that the system seeks to include in its service coverage. This is not mere speculation. The Commission need only look at the ripple effect its PCS and other wireless auctions have had on foreign administrations.

It is indisputable that the implementation of spectrum auctions for U.S. terrestrial services and domestic satellite systems has received more attention from foreign telecom administrations than almost any other U.S. telecom policy development in recent memory. In direct response to the legislation authorizing spectrum auctions and the FCC's implementation of that authorization, countries in every part of the world and of every size and level of economic development are either already conducting auctions for terrestrial services or well on their way to adopting procedures to do so. A recent report sponsored and released by the FCC's Wireless Telecommunications Bureau ("International Survey"),[5/] confirms the number of countries that have already implemented auctions as an assignment mechanism for wireless spectrum licenses.

4/ NPRM at 29 (¶ 82).

5/ Martin Spicer, "International Survey of Spectrum Assignment for Cellular and PCS" (FCC September 1996) ("International Survey").

Moreover, this report highlights that additional countries, such as Brazil, Argentina, Chile, Taiwan, the Netherlands, and Mexico, are indicating their intent to adopt auctions.[6/]

Many of these countries have clearly been influenced not only by the Commission's use of auctions, but by its advocacy of auctions as a spectrum management tool as well. For example, many countries have either sent delegations to the Commission or have received Commission staff in-country in order to learn more about the use of auctions. Nonetheless, the International Survey reveals that not all of the countries that have employed auctions had the appropriate regulatory and legal systems, let alone financial markets, to use bidding procedures as an effective assignment mechanism. A U.S. decision to employ auctions for spectrum for global or regional satellite systems would be certain to prompt imitation throughout the world, causing untold financial risks and delay in the ultimate deployment of these systems. As a result, the Commission's goals of fast, fair and efficient licensing coupled with rapid deployment of new and innovative services to the public are not well-served by implementation of an auctions policy for global and regional satellite systems.

The combined effect of nations throughout the world imposing such demands on regional and global satellite system operators would significantly exacerbate both the already enormous expense and substantial unpredictability of developing and deploying international satellite systems. The scope of the costs of obtaining access to spectrum for global and regional satellite systems in each country would make the task of attracting critical initial capital for these systems far more difficult than it already is. The possibility of such serial auctions to gain the right to use a frequency band segment in an efficient manner in each country would seriously compromise business plans that already require substantial upfront capital investments and the

---

6/ International Survey at 11.

establishment of multinational consortia. As the Commission accurately observed in the NPRM, uncertainty "may be so severe that, given the high fixed cost of a global system, it may deter entry, and impede the provision of service and the development of new offerings."[7/] The resulting harm to the U.S. satellite industry as a whole would have a significant detrimental impact on the U.S. economy, and would impede the provision of important new services to U.S. consumers.

II. The Use Of Auctions For Assignment Of Spectrum For Global/Regional Systems Would Have A Severe Adverse Economic Impact On The U.S. Satellite Industry, Jeopardizing U.S. Leadership In The Expanding Market For Global Telecommunications Services.

The significance of the U.S. satellite industry and its contributions to the U.S. economy and the balance of trade should not be underestimated. The United States is today the largest supplier and user of satellite components, systems and services. In 1995, for example, U.S. companies generated over $7 billion in domestic revenues from commercial space activities. Satellite communications services generated the largest portion ($2.75 billion), followed by ground equipment ($2 billion), and satellite manufacturing ($1.7 billion). The launch services industry has also made assumptions for expansion based upon the projected future growth in demand for fixed- and mobile-satellite service spacecraft.[8/] Any downward adjustment in expectations as a result of changing and uncertain market-entry policies would reverberate across all of these industry segments, and beyond.

The U.S. satellite industry has already invested billions of dollars in the research and development of new global satellite system concepts, and far greater investments are

---

7/ NPRM at 29 (¶ 80).

8/ The annual growth rate for satellite services is approximately 25%, which far exceeds the rate of growth within the telecommunications sector or the U.S. economy as a whole.

anticipated between now and the end of the decade.[2/] These business plans rely on continuation of the sound international satellite policies that the Commission has pursued over the last two decades — policies that have engendered the dramatic success of the industry. For this reason, the United States has by far the most to lose by the Commission extending its auctions policy to spectrum for global and regional satellite systems.

These sound regulatory policies in the United States have permitted the early licensing of new and innovative global satellite systems. While they have generally been U.S.-sponsored systems, they reflect significant multinational efforts. Nonetheless, there are still many countries lagging behind in commercial satellite initiatives which may provide them with incentives to delay the advancement of the U.S.-licensed multinational consortia.

The nature of competitive bidding would produce added delays and uncertainties, accruing both from the time required for individual nations to adopt such procedures and the fact that many sequential auctions will be required. These sorts of delays would undermine the goals ardently pursued by the United States at the recent ITU World Telecommunications Policy Forum. There the United States Government succeeded in maintaining the concept of early introduction of these systems as one of the 10 voluntary principles of the Chairman's Report. Having strongly advocated maintenance of "early" as part of the principle, the U.S. Government would appear, at best, inconsistent were it to take actions domestically that would complicate or frustrate expeditious licensing for these systems around the world.

2/ It has been projected that the U.S. satellite industry is expected to invest approximately *$32 billion* over the next four years in developing just the proposed global Ka-band systems.

III. The Use Of Auctions For Assignment Of Global Satellite Spectrum Would Thwart The Purposes That Competitive Bidding Procedures Were Designed To Serve.

The use of auctions to assign spectrum for global or regional satellite systems would also necessarily produce uncertainty or inefficiencies even within the Commission's auction process. The Commission has previously noted that auction mechanisms function best when all bidders are well-informed concerning the utility and value of the spectrum.[10/] It is only logical to expect that the more information that bidders have concerning the practical circumstances of providing a service, the more comfortable they will be in their assessments of the utility of the frequencies and the more likely the seller of spectrum will be to obtain full value.

If the Commission were to use auctions in this country for assignment of spectrum that provides U.S. satellite systems with contingent opportunities to serve other nations, bidders in the U.S. would be left with huge uncertainties concerning how to calculate the worth of a U.S. license in isolation. Because neighboring countries could adopt very different allocation and licensing schemes that would affect or alter the value of U.S. domestic operations, bidders would not be well-informed as to the market value of the spectrum. A company forced to bid on a license in the United States would not be in a position to make an assessment of its ability to achieve a sufficient number of licenses in non-U.S. markets to create a financially-viable global or regional service; therefore, the advantages of gaining a U.S. license would be significantly reduced, as would the perceived value of the spectrum — to the extent that any reasonable value could be attached to U.S.-only spectrum rights.

10/ See Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 9 FCC Rcd 2348, 2362 (1994).

As a practical matter, with the use of auctions by each foreign nation remaining an open question, bidders in the United States would have no sound way of assessing the real value of the spectrum being auctioned by the Commission. The level of uncertainty would be compounded by questions as to the reliability of the varying auction procedures that might be employed by foreign nations. Moreover, serial auctions could create opportunities for speculators whose sole reason for bidding in other markets would be to seek to extract payment from the actual operator of a satellite system. As Chairman Hundt himself recently noted, there are no assurances that auctions for cross-border services can be conducted fairly or appropriately.[11/] The International Survey concludes, and auction theory assumes, that well-developed and efficient legal systems and financial markets must exist for auctions to succeed.[12/] Equally important to the theory, though not explicitly stated, is the requirement of a sound regulatory system with transparent processes that obviate the need for court oversight or review of auction proceedings.

The need to participate in multiple auctions at incalculable expense before implementing service also would necessarily delay the introduction of service to users. The underlying rationale for employing auctions — to achieve a fast, fair and efficient means of licensing new service, thus speeding its availability to consumers[13/] — would therefore be thwarted by using this mechanism in the context of global and regional satellite services. Moreover, the combination of delays and increased financial burdens would serve as disincentives to future innovation in satellite technology.

11/ Reed E. Hundt, comments before the Center for Strategic and International Studies, Washington, D.C. (December 17, 1996).

12/ International Survey at 22.

13/ See NPRM at 29 (¶ 82); 47 U.S.C. § 309(j)(3)(A).

The nature of the satellite business also is significantly different from most of the services that have been subject to auctions since the Commission was given auction authority. Unlike satellite services, terrestrial wireless services have a history of speculative applications, through which companies and individuals sought licenses largely in the hope of selling them to entities that actually desired to provide service, thus exploiting the public asset and delaying service to consumers.

The consequences of the Commission using auctions to assign satellite spectrum for global and regional satellite systems simply cannot be harmonized with the public interest factors that the Commission is required to consider in awarding licenses by means of competitive bidding. The continued development and deployment of satellite services for the benefit of the public will only be impeded if U.S.-licensed satellite systems must face auctions in multiple countries around the world. Economic opportunity, competition and innovative technologies would be stifled as system proponents find themselves unable to obtain sufficient financing. Any recovery of funds for the U.S. government produced by satellite auctions would be very substantially outweighed by their long-term adverse economic consequences.

IV. The Use Of Auctions For Assignment Of Global Satellite Spectrum Would Have Consequences Adverse To U.S. National Security.

Finally, the use of auctions to assign spectrum for global and regional satellite systems raises questions as to their potential impact on U.S. national security interests. Specifically, it is important to examine what impact auctions might have on plans for increased national security reliance on commercial satellite capabilities. The prevailing view of the national security policy community today is that greater use of commercial telecommunications systems can be an efficient and cost-effective way to meet future military and national security

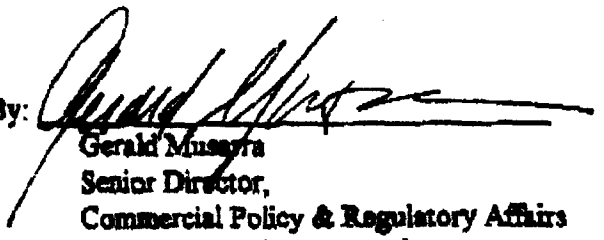
communications requirements. Should the anticipated growth of global satellite networks be impeded or their cost structures substantially increased through the use of spectrum auctions, plans for the national security community to rely increasingly on commercial systems and/or technology would be undermined. It does not appear that any serious thought has been given so far to these potential consequences of satellite spectrum auctions and their ultimate impact upon the costs borne by U.S. taxpayers to meet national security needs.

* * * *

For each of the foregoing reasons, Lockheed Martin strongly urges the Commission not to adopt competitive bidding as a means of resolving mutual exclusivity in the NVNG MSS or any other satellite service that is global or regional in scope.

Respectfully submitted,

LOCKHEED MARTIN CORPORATION

By: 

Gerald Musarra
Senior Director,
Commercial Policy & Regulatory Affairs
Lockheed Martin Corporation
1725 Jefferson Davis Highway
Arlington, VA 22202
(703) 413-5791

December 20, 1996